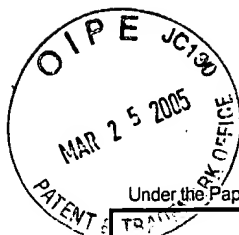


03-28-05

RCE *W*

PTO/SB/30 (09-04)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Request For Continued Examination (RCE) Transmittal Address to: MS RCE Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450	Application Number	09/839,532
	Filing Date	April 20, 2001
	First Named Inventor	Chiaki Hashimoto
	Art Unit	2181
	Examiner Name	E. Chang
	Attorney Docket Number	09469/000K834-USO

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.

Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application.

1. **Submission required under 37 CFR 1.114** Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

a. ☒ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

i. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

ii. ☐ Other _____

b. ☒ Enclosed

i. ☒ Amendment/Reply to Advisory Action

iii. ☐ Information Disclosure Statement (IDS)

ii. ☐ Affidavit(s)/Declaration(s)

iv. ☐ Other _____

2. **Miscellaneous**

a. ☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

b. ☐ Other _____

3. **Fees** The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

a. ☐ The Director is hereby authorized to charge the following fees, or credit any overpayments, to Deposit Account No. _____. I have enclosed a duplicate copy of this sheet.

i. ☒ RCE fee required under 37 CFR 1.17(e)

ii. ☒ Extension of time fee (37 CFR 1.136 and 1.17)

iii. ☐ Other _____

b. ☒ Check in the amount of \$ 1,810.00 enclosed

c. ☐ Payment by credit card (Form PTO-2038 enclosed)

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED			
Signature		Date	March 25, 2005
Name (Print/Type)	Chris T. Mizumoto	Registration No.	42,899

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Dated: _____

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Inventor: Chiaki Hashimoto

Appln: 09/839,532 Filed: Apr. 20, 2001
Title: POWER ON/OFF CIRCUIT

Title: POWER ON/OFF CIRCUIT APPARATUS HAVING A RESET FUNCTION

Documents:

Amendment to Final Office Action (11 pages)

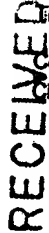
Amendment Transmittal (1 page)

Transmittal (1 page)

Certificate of Express Mailing (1 page)

Check in the amount of \$200.00

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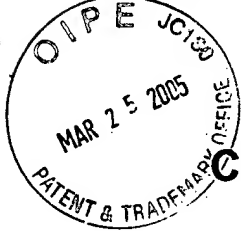
Via: Express Mail

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Application No. (if known): 09/839,532

Attorney Docket No.: 09469/000K834-US0



Certificate of Express Mailing Under 37 CFR 1.10

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Amendment in Response to Final Office Action (11 pages)
Amendment Transmittal (1 page)
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Return Postcard



AMENDMENT TRANSMITTAL LETTER

Docket No.
09469/000K834-USO

Application No. 09/839,532	Filing Date April 20, 2001	Examiner E. Chang	Art Unit 2181
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Applicant(s): Chiaki Hashimoto

Invention: POWER ON/OFF CIRCUIT APPARATUS HAVING A RESET FUNCTION

TO THE COMMISSIONER FOR PATENTS

Transmitted herewith is an amendment in the above-identified application.

The fee has been calculated and is transmitted as shown below.

CLAIMS AS AMENDED					
	Claims Remaining After Amendment	Highest Number Previously Paid	Number Extra Claims Present	Rate	
Total Claims	9	- 20 =		x	
Independent Claims	4	- 3 =	1	x 200.00	200.00
Multiple Dependent Claims (check if applicable) <input type="checkbox"/>					
Other fee (please specify):					
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT:					200.00

☒ Large Entity

☐ Small Entity

☐ No additional fee is required for this amendment.

☐ Please charge Deposit Account No. _____ in the amount of \$ _____.
A duplicate copy of this sheet is enclosed.

☒ A check in the amount of \$ 200.00 to cover the filing fee is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☒ The Director is hereby authorized to charge and credit Deposit Account No. 04-0100
as described below. A duplicate copy of this sheet is enclosed.

☒ Credit any overpayment.

☒ Charge any additional filing or application processing fees required under 37 CFR 1.16 and 1.17.

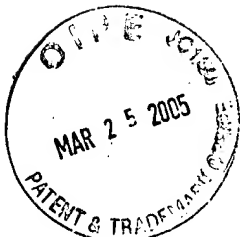
Chris T. Mizumoto
Attorney Reg. No.: 42,899

Dated: December 22, 2004

DARBY & DARBY P.C.
P.O. Box 5257
New York, New York 10150-5257
(212) 527-7783

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Dated: _____



PTO/SB/21 (09-04)

Approved for use through 07/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	09/839,532
	Filing Date	April 20, 2001
	First Named Inventor	Chiaki Hashimoto
	Art Unit	2181
	Examiner Name	E. Chang
Total Number of Pages in This Submission	Attorney Docket Number	09469/000K834-US0

ENCLOSURES (Check all that apply)

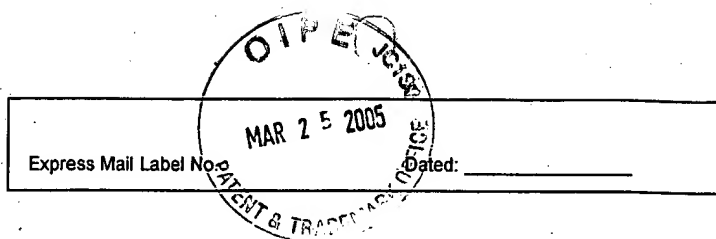
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Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	DARBY & DARBY P.C.		
Signature			
Printed name	Chris T. Mizumoto		
Date	December 22, 2004	Reg. No.	42,899

Express Mail Label No.

Dated: _____



Docket No.: 09469/000K834-US0
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Chiaki Hashimoto

Application No.: 09/839,532

Confirmation No.: 2134

Filed: April 20, 2001

Art Unit: 2181

For: POWER ON/OFF CIRCUIT APPARATUS
HAVING A RESET FUNCTION

Examiner: E. Chang

AMENDMENT TO FINAL OFFICE ACTION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

INTRODUCTORY COMMENTS

This is in response to the Office Action mailed September 27, 2004 in connection with the above-identified application.

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Claims are reflected in the listing of claims which begins on page 3 of this paper.

Remarks/Arguments begin on page 7 of this paper.

AMENDMENTS TO THE SPECIFICATION

Please replace the abstract with the following paragraph.

ABSTRACT

In a power on/off circuit apparatus, if a microcomputer 4 malfunctions, an on/off operation of a power switch 3 is executed, and thereby, the microcomputer 4 is reset. A non-volatile memory 14 stores an operating state of components just before the power switch 3 is operated. Therefore, if the microcomputer 4 malfunctions, without unplugging an AC cord, it is possible to reset the microcomputer 4 by the power switch 3, and thus, to carry the components from a state just before the reset to the next operating state.

AMENDMENTS TO THE CLAIMS**Listing of claims**

1 (previously presented): A power on/off circuit apparatus, comprising:
a power on/off circuit for controlling an on/off supply of power to electronic components from an external power source;
a microcomputer connected to the power on/off circuit for controlling said power on/off circuit based on an operation input of a power switch;
a reset circuit for giving a reset signal to a reset terminal of the microcomputer when a power is supplied to said microcomputer; and
a non-volatile memory for storing power on/off information just before said power switch is operated, the power on/off circuit connected to the non-volatile memory for controlling the on/off supply of power to the non-volatile memory, and said power switch being connected to said reset terminal.

2 (previously presented): The power on/off circuit apparatus according to claim 1, wherein when said power switch is operated, said microcomputer reads the power on/off information of said non-volatile memory to determine a power on/off state just before the power switch is operated, and writes a power-on information to said non-volatile memory while making a power-on operation if the microcomputer is in a power-off state, or, writes a power-off information to said non-volatile memory while making a power-off operation if the microcomputer is in a power-on state.

3 (canceled).

4 (canceled).

5 (canceled).

6 (previously presented) An electronic device including:

a power on/off circuit for controlling an on/off supply of power to electronic components of the device from an external power source;

a microcomputer connected to the power on/off circuit for controlling said power on/off circuit based on an operation input of a power switch;

a reset circuit for giving a reset signal to a reset terminal of the microcomputer when a power is supplied to said microcomputer;

a non-volatile memory for storing a power on/off information just before said power switch is operated, the power on/off circuit connected to the non-volatile memory for controlling the on/off supply of power to the non-volatile memory, and said power switch being connected to said reset terminal, and

a power circuit connected to an AC power source and connected to the on/off circuit,

wherein said power on/off circuit uses an output of said power circuit as a power source, and said microcomputer uses an output of said power circuit as a power source, and senses a key scan of a key matrix on which various input keys except said power switch are arranged, regardless of the on/off of power supply to the electronic components by said power on/off circuit.

7 (previously presented): The power on/off circuit apparatus according to claim 1, further comprising:

a servo circuit connected to the power on/off circuit; and

an AV decoder circuit connected to the power on/off circuit.

8 (previously presented): A power on/off circuit apparatus, comprising:

a power on/off circuit for controlling an on/off supply of digital power to electronic components from an external power source;

a microcomputer connected to the power on/off circuit for controlling said power on/off circuit;

a power switch connected to a reset terminal of the microcomputer, said microcomputer configured to control said power on/off circuit based on an operation input of the power switch;

a reset circuit for giving a reset signal to the reset terminal of the microcomputer when a power is supplied to said microcomputer; and

a non-volatile memory for storing a power on/off information just before said power switch is operated, the power on/off circuit connected to the non-volatile memory for controlling the on/off supply of digital power to the non-volatile memory,

wherein the electronic components include:

a servo circuit connected to the power on/off circuit; and

an AV decoder circuit connected to the power on/off circuit.

9 (previously presented): The power on/off circuit apparatus according to claim 8, further comprising:

a power circuit connected to an AC power source; and

another power on/off circuit connected to the power circuit for controlling the on/off supply of digital power of a different level to other electronic components not connected to the first-mentioned power on/off circuit, and the microcomputer connected to the second-mentioned power on/off circuit for controlling the second-mentioned power on/off circuit.

10 (canceled).

11 (previously presented): The power on/off circuit device according to claim 6, further comprising:

a power circuit connected to an AC power source; and

another power on/off circuit connected to the power circuit for controlling the on/off supply of power of a different level to other electronic components not connected to the first-mentioned power on/off circuit, and said microcomputer connected to the second-mentioned power on/off circuit for controlling the second-mentioned power on/off circuit.

Claim 12 (new): A power on/off circuit apparatus, comprising:

a power on/off circuit for controlling an on/off supply of power to electronic components from an external power source;

a microcomputer connected to the power on/off circuit for controlling said power on/off circuit based on an operation input of a power switch;

a reset circuit for giving a reset signal to a reset terminal of the microcomputer when a power is supplied to said microcomputer;

a non-volatile memory for storing power on/off information just before said power switch is operated, the power on/off circuit connected to the non-volatile memory for controlling the on/off supply of power to the non-volatile memory, and said power switch being connected to said reset terminal; and

a power circuit connected to an AC power source,

wherein said power on/off circuit uses an output of said power circuit as a power source, and said microcomputer uses an output of said power circuit as a power source, and senses a key scan of a key matrix on which various input keys except said power switch are arranged, regardless of the on/off of power supply to the electronic components by said power on/off circuit,

wherein when said power switch is operated, a reset terminal of said microcomputer is connected to a GND, and said microcomputer is reset to resolve a hang-up of the microcomputer,

wherein when the electronic components are operating in a power saving mode, said power on/off circuit prevents supplying power to the electronic components, and said microcomputer senses a key scan of the key matrix other than said power switch.

13 (new): The power on/off circuit apparatus according to claim 12, further comprising:

another power on/off circuit connected to the power circuit for controlling the on/off supply of power of a different level to other electronic components not connected to the first-mentioned power on/off circuit, and the second-mentioned power on/off circuit being connected to the microcomputer for being controlled by the microcomputer.

REMARKS**Pending Claims**

Claims 1-11 are pending. Claims 3-5 and 10 have been canceled without prejudice. Claims 12 and 13 have been added. Claim 12 is a combination of claims 1 and 3-5. Claim 13 is claim 10 that depend from claim 12. No new matter has been added.

Specification

The abstract has been amended as stipulated in the Office Action. No new matter has been added.

Claim Rejections - 35 USC §102

Claims 1, 2, and 4 have been rejected under 35 USC §102(b) as being anticipated by US Patent No. 5,003,192 to Beigel. However, Applicants submit that the presently claimed invention is not anticipated at least for the following reason. Claim 1 recites as follows:

1 (previously presented): A power on/off circuit apparatus, comprising:
a power on/off circuit for controlling an on/off supply of power to electronic components from an external power source;
a microcomputer connected to the power on/off circuit for controlling said power on/off circuit based on an operation input of a power switch;
a reset circuit for giving a reset signal to a reset terminal of the microcomputer when a power is supplied to said microcomputer; and
a non-volatile memory for storing power on/off information just before said power switch is operated, the power on/off circuit connected to the non-volatile memory for controlling the on/off supply of power to the non-volatile memory, and said power switch being connected to said reset terminal.

At least the above bolded features are not disclosed, taught or suggested by Beigel.

Beigel shows momentary on/off switches 25, 26 connected to the logic section (microcomputer) 54 through buffers 23, 24 and ESD protection circuitry 51, 52. The on/off

switches 25, 26 are part of or at least connected to the power switch because the power switch is activated by these momentary on/off switches. Beigel's Abstract states:

...the power switch employs momentary ON/OFF switches for activating the power switch, and wherein additional circuit means is provided to preserve the ON/OFF condition or state of the power switch during a power-down situation such that upon restoration of the AC power the power switch can be caused to assume the same ON or OFF state it was in just prior to the power-down situation.

Therefore, because the on/off switches 25, 26 (and thereby, the power switch) are coupled to the logic section (microcomputer) via the buffers and ESD circuitry, if the logic section hangs up, the on/off switches 25, 26, and therefore, the power switch will become inoperable. Note that Beigel's invention is designed to retain the power switch state when there is a power loss, not when the logic section hangs up. Thus, Beigel's invention suffers from the same problem as the conventional power on/off circuit apparatus.

In general, in a conventional power on/off circuit apparatus such as Beigel's, a power switch is provided, for example, on a key matrix of a logic circuit. Therefore, if the logic circuit hangs up, the power switch becomes inoperable. The way to reset the apparatus was to execute a hard shutdown such as unplugging the power cord and then plugging the power cord back into the socket to reboot the apparatus.

In contrast, in the present invention as set forth in claim 1, a reset circuit and a power switch are connected to a reset terminal of a microcomputer. At least, this configuration is not disclosed, taught, or suggested by Beigel. By having the power switch connected to the reset terminal of the microcomputer, the microcomputer can be reset through the reset circuit without executing a hard shutdown such as unplugging and plugging the power cord (see page 7, lines 5 to 8).

Claim 1 is not anticipated by Beigel for at least the above reason. Claims 2 and 4 that depend from claim 1 are not anticipated for at least the same reason as claim 1. Claim 4 has been incorporated into new claim 12 and canceled.

Claim Rejection – 35 USC §103

Claims 3 and 5-8 have been rejected under 35 USC §103(a) as being unpatentable over US Patent to Beigel in view of US Patent. 6,625,739 to Kobayashi.

Similar to Beigel, Kobayashi also does not disclose, teach, or suggest a reset circuit and a power switch connected to a reset terminal of a microcomputer. Kobayashi teaches a system adapted to perform a hard power shutdown regardless of the status of the computer:

Under the above circumstances, therefore, it is an object of the present invention to provide a computer having a power forced shutdown function, which can shut down the computer power in a simple structure and without depending on the status of the computer.

(Column 2, lines 20 to 24)

Note that Kobayashi's power switch 46 is connected to the power supply controller 47 to execute a hard shutdown. The power switch 46 is not connected to the CPU 11 or to its reset terminal.

Therefore, Beigel together with Kobayashi does not disclose, teach, or suggest a reset circuit and a power switch of claim 1. A person of ordinary skill in the art would not have found the invention of claim 1 obvious from the cited prior art references.

Because claims 3 and 5 depend directly or indirectly from claim 1, claims 3 and 5 are also not obvious from the cited prior art references. Claims 3 and 5 have been incorporated into claim 12 and canceled.

Claims 6 to 8 also have a similar limitation as claim 1 with regard to a reset circuit and a power switch. Therefore, at least for the same reason as claim 1, claims 6 to 8 are not anticipated by or obvious from the cited prior art references.

Claims 9-11 have been rejected under 35 USC §103(a) as being unpatentable over Beigel in view of Kobayashi and in further view of Patent 5,077,551 to Saitou.

Saitou's invention is directed to "a photosensor unit for detecting the position of the display panel with respect to the main body so as to cut off power supply to the display panel when the display panel is located at the first position, and to allow power supply to the display panel when the display panel is located at the second position." (Abstract)

Similar to Beigel and Kobayashi, Saitou also does not disclose, teach, or suggest a reset circuit and a power switch connected to a reset terminal of a microcomputer.

Because claims 9-11 depend from base claims which have the reset circuit and the power switch features not taught by Beigel, Kobayashi and Saitou, these claims are also not obvious from the cited references. Claim 10 has been rewritten into claim 13.

For the foregoing reasons, all pending claims are believed to be allowable over the cited prior art.

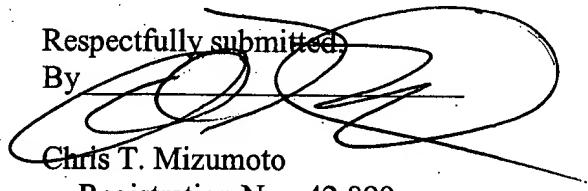
New Claims

Claim 12 is a combination of claims 1 and 3-5. Therefore, at least for the same reason as claim 1, claim 12 is not anticipated or obvious from the cited prior art references. Claim 13 depends from claim 12, and therefore, it is not anticipated by or obvious from the cited prior art references.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Dated: December 22, 2004

Respectfully submitted
By



Chris T. Mizumoto

Registration No.: 42,899

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